Monato De Composito de Transportation Suzette Peplinski, PE Michigan Department of Transportation 1420 Front Avenue NW Grand Rapids, MI 49504 PeplinskiSemichigan.gov

Serving the Grand Rapids Area Freeways

Control Room Coverage

Control Room Hours of Operation

The following report is limited to data collected during the hours of operation for the control room and within the ITS device coverage area.

Day	Time Period	Time of Day
Mondays – Thursdays	All	6:00 a.m. to 8:00 p.m.
Fridays	May through Labor Day	6:30 a.m. to 9:00 p.m.
Sundays	May through Labor Day	5:00 p.m. to 8:00 p.m.
Fridays	Labor Day through April	6:30 a.m. to 8:00 p.m.
Sundays	Labor Day through April	None
Special Events	All	As needed
Holidays	New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.	None

ITS Device Locations and Coverage Area



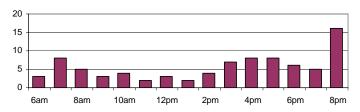


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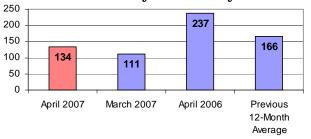
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Control Room Support Activity

Month Total of Unplanned Incidents per Weekday Hour



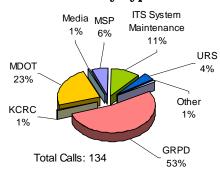
Monthly Call History



Calls by Type

Agency	ln	Out	Total
City of Grand Rapids	0	0	0
City of Wyoming	0	0	0
Grand Rapids Police Department	7	64	71
Kent County Road Commission	0	1	1
MDOT, Construction	20	10	30
MDOT, Traffic/ITS	1	0	1
MDOT, Maintenance	0	0	0
MDOT, Other	0	0	0
Media	1	0	1
Michigan State Police	0	8	8
Sheriff, Kent Co.	0	0	0
URS Corporation	4	2	6
ITS System Maintenance	3	12	15
Other	1	0	1
Month Total	37	97	134

Calls by Type



Monthly High Impact Unplanned Incident Activity

Incident	Apr 2007	Mar 2007	Apr 2006	Previous 12-Month Avg.
Lane Closures	17	6	8	9
Ramp Closures	-	1	1	1
Freew ay Closures	4	1	-	1

Total Monthly Unplanned Incidents by Roadway

Freeway	Apr	2007	Mai	2007	Apr	2006		evious onth Avg.
	Total	per mi.						
I-96 (4.5 mi.)*	5	1.1	5	1.1	5	1.1	6	1.3
I-196 (8.5 mi.)*	31	3.6	26	3.1	18	2.1	25	2.9
US-131 (11 mi.)*	49	4.5	55	5.0	55	5.0	64	5.8
Total	85	3.5	86	3.6	78	3.3	95	3.9

^{*}Mileages reflect the portion of the roadway within the coverage area.

Traffic Management Center News

The City of Grand Rapids Traffic & Safety staff along with MDIT successfully executed the move of the core servers and video equipment from the

Grand Rapids Police Department to the WM TMC building. The move minimized downtime for Control Room operations to approximately 6 hours.

A new video monitoring system is being developed that will allow other law enforcement and incident response agencies to view the WM TMC cameras.

Construction season has arrived!



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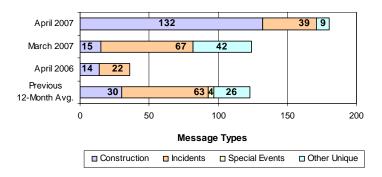
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Serving the Grand Rapids Area Freeways

Traveler Information Activity

• The MDOT ITS Control Room provides traffic information to freeway users via 10 dynamic message signs (DMS) positioned in key locations along the freeway system in the greater Grand Rapids area.

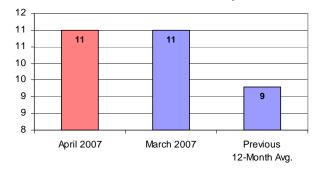
Unique DMS Messages by Type



Top Three Utilized DMS

- 1. Westbound I-96 at Fulton/M-21
- 2. Eastbound I-196 at Chicago Drive
- 3. Northbound US-131 at 28th Street

Monthly Incident Notification History



Monthly Incident Notification Communication Accuracy

	Apr 2007	Mar 2007	Previous 12-Month Avg.
Format Correct	100.0%	90.9%	89.2%
Content Correct	100.0%	90.9%	92.3%

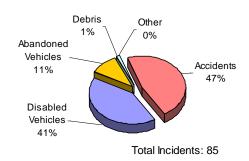


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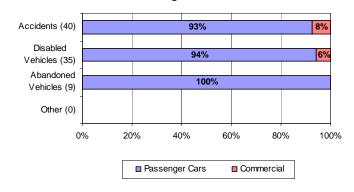
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Incident Management Information

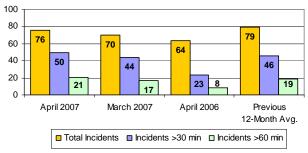
Incidents Managed by Type



Vehicle Composition of Incidents



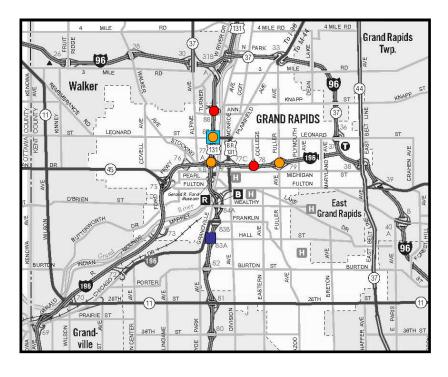
Incident Duration History*



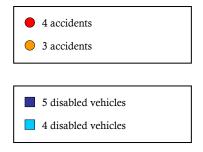
^{*}Incident Duration History does not include abandoned vehicles.

Traffic Impacts by Incident Type





Incident Hot Spots



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(See Data Key Page #10 for explanations)

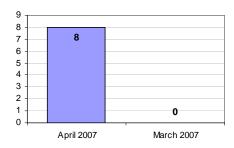


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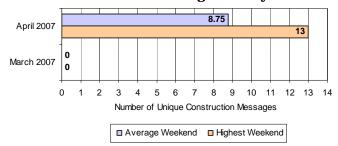
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Construction Management Information

Incidents Occurring in Construction Zones



Weekend* Construction DMS Message Activity

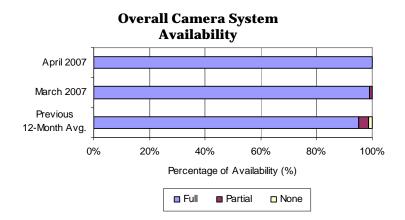


*Friday, Saturday and Sunday.

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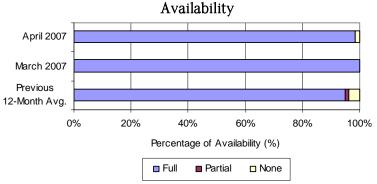
ITS Field Infrastructure Reliability



Individual CCTV CameraAvailability

	Camera	Full	Partial	None
1	US-131 @ 28th St	100%	-	-
2	US-131 @ Franklin St	100%	-	-
3	US-131 @ Market Ave	100%	-	-
4	US-131 @ Pearl St	100%	-	-
5	US-131 @ I-196	100%	-	-
6	US-131 @ Leonard St	100%	-	-
7	US-131 @ Ann St	100%	-	-
8	US-131 @ I-96	100%	-	-
9	US-131 @ Hall St	100%	-	-
10	US-131 @ West River	100%	-	-
11	I-196 @ Chicago Dr	100%	-	-
12	I-196 @ Lake Michigan Dr	100%	-	-
13	I-196 @ Lane Ave	100%	-	-
14	I-196 @ College Ave	100%	-	-
15	I-196 @ Fuller Ave	100%	-	-
16	I-96 @ I-196	100%	-	-
17	I-96 @ Fulton/M-21	100%	-	-

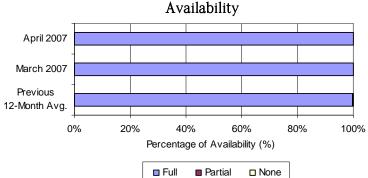
Overall DMS System



Individual Dynamic Message SignAvailability

	DMS	Full	Partial	None
1	WB I-96 @ Fulton/M-21	100%	-	-
2	WB I-196 @ Chicago Dr	100%	-	-
3	EB I-196 @ Plymouth	100%	-	-
4	SB US-131 @ West River	95%	-	5%
5	SB US-131 @ Ann	95%	-	5%
6	NB US-131 @ Leonard	95%	-	5%
7	SB US-131 @ Pearl	98%	2%	-
8	SB US-131 @ Hall	100%	-	-
9	NB US-131 @ 36th St	100%	-	-
10	NB US-131 @ 28th St	100%	-	-

Overall VSS System



Individual Variable Speed Sign

Availability

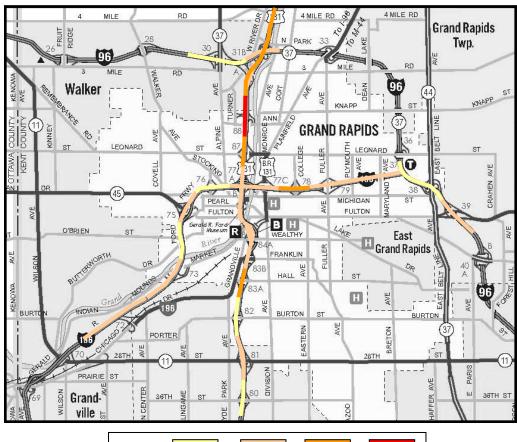
	VSS	Full	Partial	None
1	NB US-131 @ Market	100%	-	-
2	US-131 @ Franklin St	100%	-	-
3	US-131 @ Market Ave	100%	-	-
4	US-131 @ Pearl St	100%	-	-

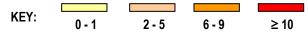
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Safety Summary

April 2007 Incidents by Freeway Segment







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Table	Description	Purpose	Data Source
Month Total of Unplanned Incidents per Weekday Hour	Displays the total unplanned incidents for 1-hour increments over a 24-hour period.	Provides a snapshot view of variability of incidents by time of day.	Control Room Activity Log Manually entered information by the operator.
Monthly High Impact Unplanned Incident Activity	Displays the number of major unplanned incidents for the current month, previous month, month last year and the monthly average for the previous 12 months.	Provides a snapshot view of the major incidents that affect the roadway and freeway interchanges along with historical data.	Control Room Activity Log Manually entered information by the operator.
Total Monthly Unplanned Incidents by Roadway	Displays the total unplanned incidents by freeway and the density of incidents based on freeway coverage.	Provides a snapshot view of the number of incidents per freeway per month.	Control Room Activity Log Manually entered information by the operator.
Monthly Call History	Displays the number of telephone calls (incoming and outgoing) for the Control Room Operators for the current month, previous month, month last year and a monthly average for the previous 12 months.	Provides a snapshot view of the control room workload in a historical context.	Control Room Activity Log Manually entered information by the operator.
Calls by Type (Table)	Displays the number and types of call activity for the Control Room operators, separating incoming and outgoing calls.	Provides a snapshot view of the Control Room call distribution and any apparent trends with the call volume or type.	Control Room Activity Log Manually entered information by the operator.
Calls by Type (Pie Chart)	Displays the percentage distribution of call activity for the Control Room operators.	Provides a snapshot view of the Control Room call distribution and any apparent trends with the call volume or type.	Control Room Activity Log Manually entered information by the operator.



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Table	Description	Purpose	Data Source
Unique DMS Messages by Type	Displays the total number of unique DMS messages by type that occurred during the month.	Provides a snapshot view of the level of effort and need related to DMS messages.	Control Room Activity Log Manually entered information by the operator.
Top Three Utilized DMS	Displays the top 3 DMS in terms of the number of unique messages displayed for the month.	Provides a snapshot view of the "most active" DMS for traveler information, which may indicate areas where additional DMS or other forms of traveler information may be necessary.	Control Room Activity Log Manually entered information by the operator.
Monthly Incident Notification History	Displays the number of email incident notifications sent out by Control Room Operators for the current month, previous month, month last year and the monthly average for the previous 12 months.	Provides a snapshot view of the control room workload in a historical context.	QA/QC Log Manually entered information by operations supervisor.
Monthly Incident Notification Communication Accuracy	Displays the accuracy of email incident notification messages sent out to stakeholders. Accuracy measures include format and content.	Provides a quantitative method of quality control on operator interactions with stakeholders.	QA/QC Log Manually entered information by operations supervisor.



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Table	Description	Purpose	Data Source
Incidents Managed by Type	Displays the distribution of incident types.	Provides a snapshot view of the composition of incidents.	Control Room Activity Log Manually entered information by the operator.
Vehicle Composition of Incidents	Displays the number of incidents that involved commercial vehicles compared to passenger cars for each incident type.	Provides a snapshot view of the incidents involving commercial vehicles.	Control Room Activity Log Manually entered information by the operator.
Incident Duration History	Displays the total number of incidents compared with the number of incidents with durations exceeding 30 minutes and 60 minutes. (current month, previous month, month last year and the monthly average for the previous 12 months.)	Provides a snapshot view of the duration of incidents managed by the control room.	Control Room Activity Log Manually entered information by the operator.
Traffic Impacts by Incident Type	Displays traffic impact distributions by incident type.	Provides a snapshot view of the typical traffic impacts for each incident type.	Control Room Activity Log Manually entered information by the operator.
Incident Hot Spots	Displays the most frequent locations for accidents and disabled vehicles.	Provides a snapshot view of where operators should concentrate their attention.	Control Room Activity Log Manually entered information by the operator.



April 2007

West Michigan TMC Serving the Grand Rapids Area Freeways

Michigan Department of Transportation 1420 Front Avenue NW Grand Rapids, MI 49504 PeplinskiS@michigan.gov

Table	Description	Purpose	Data Source
Incidents Occurring in Construction Zones	Displays the number of unplanned incidents occurring in construction zones for the current and previous months.	Provides a snapshot view of the number of incidents occurring in construction zones.	Control Room Activity Log Manually entered information by the operator.
Weekend Construction DMS Message Activity	Displays the average and maximum number of unique construction messages posted during a full (Friday-Sunday) weekend in the current and previous months.	Provide an snapshot view of the quantity of messaging occurring during the weekend.	Control Room Activity Log Manually entered information by the operator.



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Table	Description	Purpose	Data Source
Overall Camera System Availability	Displays the percentage of CCTV camera availability for the current month, previous month and the monthly average for the previous 12 months.	Provides a snapshot view of system availability in relation to historical data.	Daily Shift Report Manually entered information by the operator.
Individual CCTV Camera Availability	Displays the percentage of time each individual CCTV camera is functioning at full, partial and zero capacity.	Provides a detailed view of ITS system availability.	Daily Shift Report Manually entered information by the operator.
Overall DMS System Availability	Displays the percentage of Dynamic Message Sign availability for the current month, previous month and the monthly average for the previous 12 months.	Provides a snapshot view of system availability in relation to historical data.	Daily Shift Report Manually entered information by the operator.
Individual Dynamic Message Sign Availability	Displays the percentage of time each individual Dynamic Message Sign is functioning at full, partial and zero capacity.	Provides a detailed view of ITS system availability.	Daily Shift Report Manually entered information by the operator.
Overall VSS System Availability	Displays the percentage of Variable Speed Sign availability for the current month, previous month and the monthly average for the previous 12 months.	Provides a snapshot view of system availability in relation to historical data.	Daily Shift Report Manually entered information by the operator.
Individual Variable Speed Sign Availability	Displays the percentage of time each individual Variable Speed Sign is functioning at full, partial and zero capacity.	Provides a detailed view of ITS system availability.	Daily Shift Report Manually entered information by the operator.
Incidents by Freeway Segment	Displays incident density per segment of roadway within the ITS device coverage. Red indicates a freeway with the highest incident density. Dark orange, light orange and light yellow represent decreasing levels of density, respectively.	Provides a graphic representation of incident density to assist in choosing locations for future ITS devices.	Daily Shift Report Manually entered information by the operator.

